

National Highway Traffic Safety Administration [Docket No. NHTSA-2021-0013]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Automated Driving Systems 2.0 A Vision for Safety

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice and request for comments on a request for approval of an extension of a currently-approved information collection.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (PRA), this notice announces that the Information Collection Request (ICR) abstracted below will be forwarded to the Office of Management and Budget (OMB) for review and approval. The ICR describes the nature of the information collection and its expected burden. This is a request for an extension of a currently-approved information collection. This document describes the collection of information for which NHTSA seeks OMB extension approval, titled "Automated Driving Systems 2.0: A Vision for Safety" and identified by OMB Control Number 2127-0723, which is currently approved through May 31, 2021. The burden hour calculations have been adjusted to reflect a reduction in burden as well as a reduction in the frequency of response resulting in a total annual burden hour reduction from 86,100 hours to 12,000 hours. A Federal Register Notice with a 60-day comment period soliciting comments on the information collection was published on March 9, 2021. NHTSA received three comments to this notice, two of which were generally supportive of the information collection. The third comment addressed accessibility of ADS-equipped vehicles. None of the comments addressed burden hours or cost estimates.

DATES: Comments must be submitted on or before [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Written comments and recommendations for the proposed information collection, including suggestions for reducing burden, should be submitted to the Office of Management and Budget at www.reginfo.gov/public/do/PRAMain. To find this particular information collection, select "Currently under 30-day Review – Open for Public Comment" or use the search function.

FOR FURTHER INFORMATION CONTACT: For additional information or access to background documents, contact Debbie Sweet, NHTSA, 1200 New Jersey Avenue SE., Washington, DC 20590; Telephone (202) 366-7179; Fax: (202) 366-2106; email address: Debbie.Sweet@dot.gov. Please identify the relevant collection of information by referring to its OMB Control Number.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501 *et seq.*), a Federal agency must receive approval from the Office of Management and Budget (OMB) before it collects certain information from the public and a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. In compliance with these requirements, this notice announces the following information collection request will be submitted to OMB.

Title: Automated Driving Systems 2.0: A Vision for Safety.

OMB Control Number: 2127-0723

Form Number: None.

Type of Request: Extension of a currently-approved information collection.

Length of Approval Requested: Three years.

Summary of the Collection of Information: In September 2017, NHTSA published a policy document titled Automated Driving Systems 2.0: A Vision for Safety (ADS 2.0). Recognizing the potential that Automated Driving Systems (ADSs) have to enhance safety and mobility, this policy document set out an approach to enable the safe deployment of Automated Driving

Systems (SAE Automation Levels 3 through 5—Conditional, High, and Full Automation Systems as defined in SAE J3016).¹

Consistent with its statutory purpose to reduce traffic crashes and deaths and injuries resulting from traffic crashes, ² NHTSA has recommended disclosure of information via a Voluntary Safety Self-Assessment (VSSA) related to ADS technologies by vehicle manufacturers and other entities as described in *ADS 2.0*. In the section of *ADS 2.0* titled, "Voluntary Guidance for Automated Driving systems" (hereafter referred to as "Voluntary Guidance"), NHTSA recommended that manufacturers and other entities assess their ADS-equipped vehicle against specific safety elements, summarize that assessment, and then voluntarily disclose that summary to the public. ³ The Voluntary Guidance outlines recommended best practices, many of which should be commonplace in the industry, for the safe pre-deployment design, development, and testing of ADSs prior to commercial sale or operation on public roads.

Description of the Need for the Information and Proposed Use of the Information: To assist

States and the public in understanding how safety is being considered by manufacturers and
other entities developing and testing ADSs, NHTSA has encouraged disclosures that aid in that
mission. The burden estimates contained in this notice are based on the Agency's understanding
of the ADS market and the time associated with generating a self-assessment and voluntarily
making a summary of that self-assessment public. The estimates in this notice are adjustments
from the previous information collection request (ICR) demonstrating a decrease in the burdenhour estimate.

¹ For more information about SAE J3016, see https://www.sae.org/standards/content/j3016 201806

² 49 U.S.C. § 30101.

³ https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/13069a-ads2.0_090617_v9a_tag.pdf

The manner by which NHTSA encourages ADS manufacturers and other entities to disclose information is through a VSSA. The VSSA summarizes how the manufacturer or other entity has considered the safety elements contained in the Voluntary Guidance as shown below:

- System Safety
- Operational Design Domain
- Object and Event Detection and Response
- Fallback (Minimal Risk Condition)
- Validation Methods
- Human Machine Interface
- Vehicle Cybersecurity
- Crashworthiness
- Post-Crash ADS Behavior
- Data Recording
- Consumer Education and Training
- Federal, State and Local Laws

The Agency believes the work associated with consideration of the safety element in the Voluntary Guidance to be an extension of good and safe engineering practices already in place. It therefore believes that manufacturers and other entities will have access to all the information needed to craft a VSSA that discusses how the safety elements were considered and, if they choose, release a summary of that assessment publicly. Of the manufacturers and other entities who voluntarily disclose this information, NHTSA anticipates that most manufacturers and other entities will post the VSSAs online. As of December 28, 2020, NHTSA was aware of 26 VSSAs, all available online.

The safety elements are fully described in the Voluntary Guidance section (section 1) of *ADS 2.0*, as is the VSSA. The VSSA (including the public release of that summary

assessment) is intended to communicate to the public (particularly States and consumers) that entities are (1) considering the safety aspects of ADSs; (2) communicating and collaborating with DOT; (3) encouraging the self-establishment of industry safety norms for ADSs; and (4) building public trust, acceptance, and confidence through transparent testing and deployment of ADSs.

60-Day Notice: A Federal Register Notice with a 60-day comment period soliciting comments on the information collection was published on March 9, 2021 (86 FR 13602). The Agency received three comments on this notice. Two comments, one from Locomation and one from the California Department of Motor Vehicles (DMV) were generally supportive of the information collection. Locomation stated that it "applauds NHTSA work to provide voluntary data sharing platforms to improve the public's understanding" and believes the information collection should be extended for these activities. The California Department of Motor Vehicles (DMV) and California Highway Patrol (CHP) stated it was "pleased to submit these comments expressing [their] support for extending the VSSA as a method to collect information from Automated Driving System (ADS) developers about their development of the technology." The third comment, from an individual, addressed accessibility in ADS-equipped vehicles, but did not provide any specific comments about this information collection. None of the comments addressed burden hours or cost estimates.

Affected Public: Entities involved in the testing and deployment of ADSs.

Estimated Number of Respondents: 20.

NHTSA estimates that there will be, on average, 20 respondents a year.

Frequency: On Occasion (based on information from the current information collection, respondents are expected to respond, on average, once every three years).

Number of Responses: 20

Estimated Total Annual Burden Hours: 12,000 hours.

NHTSA is using the number of entities that have received permits from the State of California as surrogate for the number of respondents that may choose to develop and issue a VSSA. As of December 28, 2020, California has cumulatively issued permits to 58 entities to test Automated Driving Systems with drivers present, five of those entities also received permits to test without a driver present, and one entity (included on both other lists) has a permit to deploy. ⁴ At the onset of the current information collection, California had issued permits to 45 entities as of November 16, 2017, but NHTSA had expected the number to grow to 60 entities within the three years of the information collection, assuming an addition of new entrants. For that reason, the burden hours and cost were calculated based on 60 respondents. NHTSA expects the number of potential respondents to remain at approximately 60 given the coordinated efforts of some companies on the list, the departure of some of those entities from the industry (departures were not prevalent in 2017 as the industry was new), and accounting for new entrants. As a point of reference, since the previous ICR was approved, NHTSA is aware of 26 published VSSAs. Given that only 26 VSSAs have been published in three years compared to the 58 actively-permitted entities in California, NHTSA believes that 60 respondents is an appropriate high-end estimate for total respondents. However, based on observations of the current information, NHTSA estimates that respondents will only produce and disclose a new VSSA once every three years. Therefore, NHTSA has revised its burden calculations to reflect estimates based on 20 respondents each year.

Components of the Voluntary Guidance in *ADS 2.0* and public disclosure of the VSSA have not changed since release in 2017. NHTSA expects the industry burden of addressing safety elements in the Voluntary Guidance to be comprised of efforts entities would already incur in normal business operation and existing documentation. While the previous ICR calculated burden hours associated with a potential increase in analysis and review in order to develop the

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⁴ https://www.dmv.ca.gov/portal/vehicle-industry-services/autonomous-vehicles/autonomous-vehicle-testing-permit-holders/

VSSA, NHTSA has since determined there to be no increased documentation citing how an entity addressed the safety elements in the Voluntary Guidance. NHTSA does not believe that any entity is documenting its safety efforts solely for the purpose of the VSSA and public disclosure. Therefore, NHTSA reduced the estimation of burden hours by 835 burden hours per respondent per year from the previous ICR.

Development and disclosure of a VSSA is expected to involve burden for format, content, and summary, varying by safety element. NHTSA estimates that each entity will spend approximately 600 hours to develop and disseminate a VSSA. This estimate of burden is comprised of efforts to transmit information from the existing format (520 hours for development) into a summary format that would be consumable by the public, including data translation, analysis, and discussion of traditionally technical information (80 hours to summarize).

The total estimated burden hours for a single VSSA is calculated as 600 hours for each of the 20 respondents. The total burden hours per year is estimated at 12,000 hours, a reduction from the 86,100 hours in the previous ICR.

In summary, NHTSA estimates the total burden associated with disclosure recommendations via a VSSA would be 600 hours per respondent with 20 respondents submitting information each year. The frequency of responding is once every three years; therefore, NHTSA estimates there will be a total of 60 unique responders over the course of the next three years.

The burden hours associated with development of a VSSA are detailed in the tables below.

Table 1. Burden Hours Estimates for VSSA, per Safety Element

Safety Element in Voluntary Guidance	Burden Hours for VSSA Development	Burden Hours for VSSA Summary
A. System Safety	20	10

B. Operational Design Domain	20	5
C. Object and Event Detection and Response	40	5
D. Fallback	80	10
E. Validation Methods	80	10
F. Human Machine Interface	20	5
G. Vehicle Cybersecurity	20	5
H. Crashworthiness	20	5
I. Post-Crash ADS Behavior	20	5
J. Data Recording	80	10
K. Consumer Education and Training	40	5
L. Federal, State, and Local Laws	80	5
Total Burden Hours Per ADS	520	80

Table 2. Calculation of Annual Burden Hours

Total Estimated Burden Hours for Industry per Vear	12,000 hours
Total Burden Hours per Respondent	600 hours
Estimated Burden Hours for Summarizing Information	80 hours
Estimated Burden Hours for Voluntary Assessment Development	520 hours
Estimated Number of Respondents Annually	20

NHTSA estimates the hourly cost associated with preparing VSSAs to be \$97.36⁵ per hour using the Bureau of Labor Statistics' mean hourly wage estimate for architectural and

⁵ The hourly wage is estimated to be \$68.35 per hour. National Industry-Specific Occupational Employment and Wage Estimates NAICS 336100 - Motor Vehicle Manufacturing, May 2019, https://www.bls.gov/oes/current/naics4_336100.htm, last accessed June 30, 2020. The Bureau of Labor Statistics

engineering managers in the motor vehicle manufacturing industry (Standard Occupational

Classification #11-9041). Therefore, the total estimated annual burden to each respondent is

 $$58,416 (600 \text{ hours} \times $97.36 = $58,416)$. Therefore, the total estimated labor costs to all

respondents to this collection is \$1,168,320.

Estimated Total Annual Burden Cost: NHTSA does not anticipate any further burden to

respondents beyond the labor costs associated with the burden hours.

PUBLIC COMMENTS INVITED:

You are asked to comment on any aspect of this information collection, including (a)

whether the proposed collection of information is necessary for the proper performance of the

functions of the agency, including whether the information will have practical utility; (b) the

accuracy of the agency's estimate of the burden of the proposed collection of information,

including the validity of the methodology and assumptions used; (c) ways for the department to

enhance the quality, utility and clarity of the information to be collected; and (d) ways to

minimize the burden of the collection of information on respondents, including the use of

appropriate automated, electronic, mechanical, or other technological collection techniques or

other forms of information technology, e.g., permitting electronic submission of responses

without reducing the quality of the collected information.

AUTHORITY: The Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as amended; 49

CFR 1.49; and DOT Order 1351.29.

Cem Hatipoglu,

Associate Administrator for

Vehicle Safety Research.

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estimates that wages represent 70.2 percent of total compensation to private workers, on average. Therefore,

NHTSA estimates the total hourly compensation cost to be \$97.36.

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